RYCHIN, U.

Flora Gigrofitov (Hydromorphous Flora - Encyclopedia of Vegetation in Cisterns and Damp Regions in the Central Part of the European Territory of the USSR)

445 p. 2.00

SO: Four Continent Book List, April 1954

RYCHIN, Yu., zasluzhennyy uchitel' shkoly RSFSR.
Do it yourself. IUn.nat. no.4:39 Ap '59. (MIRA 12:3)
(Bumblebees)

RYCHIN, YU. V.

Agriculture

Trees and shrubs of forests, parks, gardens and shelterbelts in the central belt of the European part of the U.S.S.R. Moskva, Uchpedgiz, 1950.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

1. RYCHIN, YU.V.
2. USSR (600)
4. Agriculture
7. Weeds. Moskva, Uchpedgiz, 1952

9. Monthly List of Russian Accessions, Library of Congress. February,1953. Unclassified.

RYCHIN, Yu. V.

Forests and Forestry

Unsuccessful pamphlet ("Forest hospital." n.m. Berzilin. Reviewed by Yu. V. Rychin). Est. v shkole no. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1952~~1953~~, Uncl.

RYCHIN, Yu. V.

Lukina, Ye. V.

"Bird village." Ye. V. Lukina. Reviewed by Yu. V. Rychin. Est. v shkole no. 4, 1952

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

RYCHIN, Yu. V.

Yu. V. RYCHIN, Derev'ya i kustarniki zimoy /Trees and Shrubs in Winter/, a handbook for winter botanical excursions, Uchpedgiz, 9 sheets.

The identification manual for trees and shrubs in winter (by branches and buds) cinsists of tables forming an identification key. The description concerns plants widely disseminated in the Central Belt of the European part of the USSR.

The book is intended for the middle-school teacher.

SO: U-6472, 12 Nov 1954

RYCHIN, Yu. V.

RYCHIN, Yu.V.

"Adventures of fruits and seeds." V.Korsunskaia. Reviewed by IU.V.Rychin. Est. v shkole no.3:89-90 My-Je '54. (MLRA 7:7)

1. Moskovskiy gorodskoy institut usovershenstvovaniya uchiteley. (for Rychin)
(Korsunskaia, V.) (Fruit)

RYCHIN, Yu. V.

USSR/ Biology-Botany

Card : 1/1

Authors : Rychin, Yu. V. (Moscow)

Title : Rare plant found in water reservoirs around Moscow

Periodical : Priroda, 6, 109 - 110, June 1954

Abstract : A rare plant Limnanthemum nymphaeoides Link. of the Gentianaceae family found in the water reservoirs around the city of Moscow USSR is described. Illustrations.

Institution : ....

Submitted : ....

BOCHAROV, Saveliy Yemel'yanovich; RYCHIN, Yuriy Vladimirovich; NEKHLYUDOVA, A.S., redaktor; TSYPPO, R.V., tekhnicheskiy redaktor.

[Work with medicinal plants in the school; a manual for teachers] Rabota s lekarstvennymi rasteniiami v shkole; posobie dlia uchitelei. Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, 1956. 114 p. (MLRA 10:1)
(BOTANY, MEDICAL)

RYCHIN, Yu.V

RYCHIN, Yu.V.

Care and breeding of pigeons. Biol.v shkole no.1:62-65 Ja-F '57.
(MLRA 10:5)

1.Zasluzhennyy uchtitel' shkoly RSFSR. Shkola no.29 goroda Moskvy.
(Pigeons)

RYCHIN, Yu.V. (Moskva)

Shortcomings in the inculcation of a civilized attitude toward nature. Biol. v shkole no.3:55-59 My-Je '63. (MIRA 16:10)

RYCHIN, Yu.V., zasluzhennyy uchitel' (Moskva)

"Birds in captivity" by K.N. Blagosklonov. Reviewed by IU.V. Rychin. Biol. v shkole no.5:88-90 S-O '61. (MIRA 14:9)
(Birds—Behavior)
(Blagosklonov, K.N.)

RYCHIN, YuV., zasluzhennyy uchitel' shkoly RSFSR (Moskva)

Conservation of nature should be approached carefully.
Biol. v shkole no.4:53-54 Jl-Ag '61. (MIRA 14:7)
(Natural resources--Study and teaching)

RYCHIN, Yu.V., zasluzhennyy uchitel' shkoly RSFSR, Moskva.

Key for identification of plants for fifth and sixth grade grade students ("What is growing around you" by I.V. Ivanova. Reviewed by IU.V. Rychin). Biol. v shkole no. 1:91-93 Ja-F '61. (MIRA 14:4)

(Botany--Classification) (Ivanova, I.V.)

KIREYEV, Mikhail Ivanovich; KOVARSKIY, Aleksandr Il'ich; YEGOROV, G.P., nauchnyy red.; RYCHEK, T.I., red.; PERSON, M.N., tekhn.red.

[Construction and operation of electric power plants, electric substations, and electric power transmission lines] Montazh i ekspluatatsiia elektricheskikh stantsii, podstantsii i linii peredach. Moskva, Vses.uchebno-pedagog.izd-vo Proftekhizdat, 1960. 422 p. (MIRA 14:1)
(Electric power plants) (Electric power distribution)

RYCHIN, Yuriy Vladimirovich; STANKOV, S.S., prof., red.; RYBAKOVA, N.T., red.; KOZLOVSKAYA, M.D., tekhn.red.

[Weeds; a guide to the central areas of the European U.S.S.R.] Sornye rasteniia; opredelitel' dlia srednei polosy Evropeiskoi chasti SSSR. Izd.2. Moskva, Ges.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1959. 289 p. (MIRA 12:7)
(Weeds)

RYCHIN, Yuriy Vladimirovich; RYBAKOVA, N.T., red.; KOZLOVSKAYA, M.D., tekhn.red.

[Guide to trees and shrubs; a manual for teachers in secondary schools] Drevesno-kustarnikovaia flora; opredelitel'. Posobie dlia uchitelei srednei shkoly. Moskva, Gos.uchebno-pedagog. izd-vo M-va prosv.RSFSR, 1959. 290 p. (MIRA 12:7)
(Trees) (Shrubs)

RYCHIN, Yu.V., zasluzhennyy uchitel' shkoly RSFSR

Indoor cultivation of some plants of the amaryllis family. Biol. v shkole no.5:79-80 S-O '58. (MIRA 11:11)

1. Moskovskiy gorodskoy institut usovershenstvovaniya uchiteley. (Amaryllis)

RYCHKA, V.; KOCHNEV, V. (Moskva)

Simple f.m. radio receiver. Radio no.2:42-43 F '60.
(MIRA 13:5)

(Radio frequency modulation--Receivers and reception)

30310
S/115/61/000/008/006/009
E073/E182

9,3273(1040)

AUTHOR: Rychka, V.L.

TITLE: On a method of measuring frequency deviations

PERIODICAL: Izmeritel'naya tekhnika, no.8, 1961, 42-46

TEXT: A new method is proposed which is based on a known method of measuring the frequency deviation of frequency-modulated signals which can be applied for calibrating the instruments for measuring the deviation. The method is based on the zero amplitudes of the spectrum of a frequency-modulated signal. However, this is stated to have the following drawbacks: small number of reading-off points; existence of a minimum permissible modulation index; it is suitable only for the upper modulated frequencies; and finally, its accuracy is low, of the order of 10%. The method is modified by increasing the number of reading-off points by using also the zeros of the Bessel functions of the first and second orders. The measuring circuit is slightly different from currently used circuits. A block schematic of the circuit is given in Fig.1, where: 1 - audio-oscillator; 2 - UHF ГСС (GSS) (signal generator); 3 - receiver with double

Card 1/ 2

On a method of measuring frequency ...

frequency conversion; 4 - low frequency band-pass filter; 5 - oscillograph; 6 - quartz crystal calibrator. The beat frequency from the receiver is fed through a narrow-band, low-frequency filter to the input of the oscillograph. The method described reduces appreciably the above drawbacks and is suitable for accurate calibration measurements. The influence of nonlinear distoritions on the measuring error is also studied. There are 3 figures, 1 table and 3 Soviet-bloc references.

4

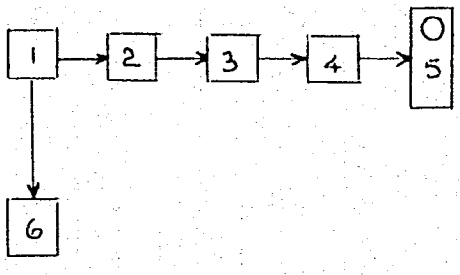

Fig. 1

Card 2/2

88386

S/108/60/015/010/014/016/XX
B012/B077

9,3273

AUTHOR: Rychka, V. L., Member of the Society

TITLE: Impulse Frequency Detectors

PERIODICAL: Radiotekhnika, 1960, Vol. 15, No. 10, pp. 51-59

TEXT: In the present work, a frequency detector of the impulse-counter type is investigated. The mode of operation of this detector and a very common circuit for impulse counting are described. Then, the formula

$$I_o = \Delta U C_1 f(1-e^{-1/2\tau_0 f}) \quad (3)$$

for the frequency characteristic of the detector counter is derived; this is quite different from other S-curves. ΔU is the voltage gradient at the plate; $\tau_0 = C_1(R_1 + R_H + R_D)$, with $R_2 = R_3 = R_H$ and $R_{D_1} = R_{D_2} = R_D$. Equation (3) is expanded in a Taylor series to calculate the nonlinear distortions; and equations are given also for the coefficients K_2 and K_3 of the second and third harmonics, respectively, of the

Card 1/2

Impulse Frequency Detectors

S/108/60/015/010/014/016/XX
B012/B077

nonlinear distortions. The influence of the load-limiting shunt capacity is investigated next. It is shown that the capacity of the capacitor in the differentiator is not to be smaller than the spurious capacity which shunts the plate load; if $C_1 > C_2$ the influence of C_2 can be neglected. Thereupon the influence of the input capacity of the filter is investigated, and it is shown that shunting the detector load with a capacitor decreases the nonlinear distortions and improves the intermediate-frequency filtering. If an LC filter is used, the capacity of this capacitor is limited, and using an RC filter a new circuit is obtained qualitatively if C_2 is increased. The effectiveness of this circuit differs considerably from that of the frequency-detector circuits described in Ref. 8. Experimental tests of this circuit showed that, when a frequency-modulated program was received, a pre-amplifier behind the detector is not necessary and that the signal can be sent directly to the output cascade of the low-frequency amplifier. The low selectivity of the aperiodic I-F amplifier is considered a shortcoming of this detector circuit, which can be eliminated by a double frequency conversion. There are 6 figures and 11 references: 3 Soviet and 1 German.

SUBMITTED: October 14, 1959

Card 2/2

24072
S/106/61/000/002/001/006
A055/A133

9.3273

AUTHOR: Rychka, V. L.

TITLE: Passage of FM oscillations through an aperiodic amplifier

PERIODICAL: Elektrosvyaz', no. 2, 1961, 3 - 11

TEXT: The distortion of FM-modulated signals in tuned and bandpass amplifiers has already been analyzed by Yevtyanov [Ref. 1: S. I. Yevtyanov, Perekhodnyye protsessy v priyemno - usilitel'nykh skhemakh (Transition Processes in Receiving and Amplification Circuits), Svyaz'izdat, 1948]; Gonorovskiy [Ref. 2: I. S. Gonorovskiy. Radiosignaly i perekhodnyye yavleniya v radiotsepyakh (Radio Signals and Transition Phenomena in Radio Circuits), Svyaz'izdat, 1954] and by Manayev [Ref. 3: "O shirine polosy pri priyemye chastotno-modulirovannykh signalov, neobkhodimoy dlya otsutstviya nelineynikh iskazheniy (On the Band Width of FM Signals Necessary for the Absence of Nonlinear Distortions) "Radiotekhnika", no. 5, 1948]. But the passage of FM-signals through an aperiodic amplifier and their ensuing distortion have not been examined as yet, because there seemed to be no practical reason justifying such an investigation. The use of IF aperiodic amplifiers becomes necessary, however, in some recently developed FM-receiver

Card 1/3

designs, where the intermediate frequency must be of the order of 200 - 300 kc. The passage of FM-signals through aperiodic amplifiers is therefore analyzed in this article. The two causes of distortion -- i.e. the distortion due to the curvature of the phase characteristic and the distortion due to the transient processes - are considered separately. The method used by the author is the following: he begins by establishing the equation for the phase characteristic and analyzing it (the transient processes in the particular case of pulse-frequency modulation are briefly discussed); then, using this equation and the formula giving the frequency at the output of a quasi-stationary amplifier (as a function of the average input frequency, of the modulating frequency, of the maximum frequency deviation at the input and of the phase characteristic), the author calculates the coefficient of non-linear distortions. As a result of this theoretical reasoning and calculation, the author arrives at the following conclusions: 1) The aperiodic amplifier designed for the amplifying of FM-oscillations can be considered as quasi-stationary, and the effect of the transient process upon the FM-signal can therefore be neglected. 2) Non-linear distortions in the aperiodic amplifier are already small when the time-constant of the amplifier stage anode circuit $T_a \leqslant 0.3$ microsec, and the time-constant of the grid circuit $T_g \geqslant 80$ microsec. It follows that a steep slope of the frequency characteristic up to the level 0.7 is admissible at 500 kc; in other words, it

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A055/A133

Passage of FM oscillations through an aperiodic amplifier

is possible, in the majority of cases, to use the amplifier's connecting diagram without any high-frequency compensation. An experimental investigation proved the correctness of the author's conclusions. There are 5 figures and 8 references 6 Soviet-bloc, 2 non-Soviet-bloc. The reference to the recent English-language publication reads as follows: Scroggie. "Low distortion FM discriminator", Wireless World, April 1956.

SUBMITTED: February 17, 1960.

Card 3/3

S/115/63/000/002/006/008
E202/E492

AUTHOR: Rychka, V.L.

TITLE: Method of extremal frequencies for measurement of frequency deviation

PERIODICAL: Izmeritel'naya tekhnika, no.2, 1963, 50-51

TEXT: A method of extremal frequencies as developed by P.A.Shpan'on and N.B.Petrov (Izmeritel'naya tekhnika, no.3, 1960), designated for measurement of low modulating frequencies smaller than 2 to 3 kcs, is discussed as a complementary study to the earlier work of the author on a similar method but applicable to frequencies in excess of these frequencies. The principle of this method lies in that in the measuring instrument receiving the FM oscillations, beats are formed between the signal of the instantaneous frequency and non-modulated voltage of any variable standard frequency oscillator. The beats are detected by an amplitude detector, amplified and fed to an oscilloscope. Although the input FM signal is accompanied by a parasitic AM and the resonance curve of the receiver may be nonsymmetrical or insufficiently wide so that the CRT picture shows a somewhat

Card 1/3

Method of extremal ...

distorted modulating voltage, this curve does not interfere but even helps in the measurement of the frequency deviation. By continuous changes of frequency it is possible with this method to reach such a position that two zero beats are exactly coincident. This means that the frequency of the standard generator is exactly equal to the highest (or the lowest) value of the instantaneous frequency. This point may be discovered with great accuracy so that the error of the zero beat arrangement is of the order of 100-ths of a percent of the nominal value of a 50 kcs frequency deviation and the accuracy of measurement of the maximum frequency deviation is largely determined by the accuracy of scale reading of the nonmodulated oscillator. The block diagram of the experimental set-up consisted of an FM oscillator, HF amplifier mixer, IF amplifier, amplitude detector, LF amplifier and an oscilloscope. The first heterodyne was connected to the mixer and the second with a graduated frequency scale to the amplitude detector. If the signal has a symmetrical frequency modulation, the measurement of the maximal frequency deviation is very simple, viz the frequency deviation

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001446410017-3"

Method of extremal ...

$$\Delta f_{av} = \frac{f_{max} - f_{min}}{2}$$

where f_{max} and f_{min} are the greatest and smallest instantaneous intermediate frequencies. With nonsymmetrical modulation two cases arise, one when the average FM of the oscillator remains unchanged and the other when it changes with increase of frequency deviation due to the changes of the quiescence point of the reactance tube. In these methods, the lower the modulation frequency the easier it is to find the beats and their point of coincidence. With a modulation frequency in excess of 1 to 2 kcs, zero beats are very poorly defined and their coincidence point can only be found after considerable training. The presence of nonlinear distortion in the measured FM signal has substantially no effect on the result of the measurement since the method measures only extremal frequencies. There are 3 figures.

Card 3/3

RYCHKA, V.L.

Passing FM oscillations through an aperiodic amplifier.
Elektrovsviaz' 15 no.2:3-11 F '61. (MIRA 14:3)
(Amplifiers(Electronics))

RYCHKA, V.L.

Concerning impulse frequency detectors. Radiotekhnika 15 no.10: 51-59 O '60. (MIRA 14:9)

1. Deystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva radiotekhniki i elektrosvyazi im. A.S. Popova.
(Radio detectors)

RYCHKAL', A.G.

Some technological aspects of the processing of slightly spoiled beets and the control of technological production processes. Sakh. prom. 35 no. 1:34-36 Ja '61. (MIRA 14:1)

1. Krasnodarskiy nauchno-issledovatel'skiy institut pochvovedeniya.
(Sugar manufacture)

RYCHKAL', A.G.

Regulating the technology of sugar production. Sakh. prom. 34 no.8:21 Ag '60. (MIRA 13:8)

1. Maydanetskiy sakharnyy zavod.
(Sugar manufacture)

RYCHKINA, E. F.

Drying of lacquer paints in ozonized air. E. Ya Gol'denshtein, Z. G. Dobrynina and E. F. Rychkina. Org. Chem. Ind. (U. S.S.R.) 5, 108-13(1938).-- The drying of the intermediate base layers can be accelerated 5-8 times in ozonized air at room temp. The method cannot be used in drying the top varnish coat with lustrous finish. Cf. Salmony-Karsten, C. A. 29, 7675[3]

Chas. Blanc

RYCHKINA, V.F.

Chemical Abst.
Vol. 48 No. 6
Mar. 25, 1954
Organic Chemistry

Structure and reactivity of aromatic hydrocarbons. Reaction of azo coupling of unsymmetrical diphenylethylene with p-nitrobenzenediazonium chloride. V. V. Razumovskii and L. F. Rychkina (M. A. Bonch-Bruevich Electrotech. Inst., Leningrad). *Doklady Akad. Nauk S.S.S.R.* 88, 839–41(1953).—To a $Ph_2C:CH_2$ in pyridine was added dropwise with stirring the calcd. amt. of $p\text{-}O_2NC_6H_4N_2Cl$ at 20–5°, and the mixt., after standing overnight, was kept 10–12 hrs. at −10°, yielding a ppt. which upon crystn. from C_6H_6 and petr. ether–EtOAc gave 10% yellow solid, $C_{20}H_{16}O_2N$ (I), m. 164°, identical with Wizinger's (W. and Cyriax, *C.A.* 40, 5408[1]) product, although W. assigned to it a wrong formula. I is the result of decompn. of the normal azo deriv. with loss of N_2. With aq. $KMnO_4$ it gave Ph_2CO and $p\text{-}O_2NC_6H_4CO_2H$, indicating that it is $p\text{-}Ph_2C:CHC_6H_4NO_2$. It yields a *dibromide* (II), m. 178–8.5°. Reduction with Fe in AcOH gave the corresponding *amine*, decomp. 137°, which upon diazotization yields an orange dye with 2-hydroxynaphthanilide. The soln. left after isolation of I was neutralized with dil. HCl and extd. with Et_2O, yielding, after evapn. and prolonged standing, an unstated amt. of the 2nd product of the azo coupling reaction, $C_{20}H_{17}O_3N$ (III), m. 150° (from C_6H_6), which forms a dibromide, m. 178–8.5°, identical with I. III product was identified as $p\text{-}Ph_2C(OH)CH_2C_6H_4NO_2\text{-}p$; with concd. H_2SO_4 it yields $p\text{-}O_2NC_6H_4CH:CPh_2$, m. 154°. G. M. Kosolapoff

RYCHKINA, Ye. F. and Razumovskiy, V. V.

Structure and Reactivity of Aromatic Hydrocarbons. I. The Azo-Coupling Reaction of Unsymmetrical Diphenyl Ethylene with p-Nitrophenyl Diazonium Chloride, page 1685.
Sbornik statey po obshchey khimii (Collection of Papers on General Chemistry), Vol II, Moscow-Leningrad, 1953, pages 1681-1686.

Leningrad Electrical Engineering Inst of Communications imeni Professor M. A. Bonch-Bruyevich

RYCHIN, Yu. Yu. (Reviewer)

Birds

"Bird village" Ye. N. Lukina. Reviewed by Yu. V. Rychin. Est. v shkole No. 4 July-August 1952

Monthly List of Russian Accessions Library of Congress November, 1952 UNCLASSIFIED

RYCHINGOWA, B.

Applying the newest scientific achievements in the [illegible] cartography of the United States. p. 260. ACTA PHYSICA POLONICA. Warszawa. Vol. 12, No. 7, July 1956.

East European Accessions List (EEAL) Library of Congress Vol. 5, No. 11, August 1956.

TETERIN, V.A.; REVENKO, V.V.; RYCHKAL', A.G.

"B.V.IA." rotary sulphur furnace. Sakh.prom. 27 no.7:39-41 Jl '53.
(MLRA 6:6)

1. Sumskoy sakhsveklotrest. (Sugar industry)

RYCHKAL, M.G.

Modernization of granulators. A. G. Rychkal'. *Sakharnaya Prom.*, 27, No. 11, 25-7(1953).—Described and sketch of horizontal hermetically closed drying revolving drum, and vertical stationary cooler. Such an installation eliminates the necessity of steaming sugar in centrifugals besides washing and therefore decreases cycles by 20%. Drying and cooling can be regulated and countercurrent of air is assured. The installation is easily maintained and occupies little space.

V. B. Baikow

RYCHKAL', A.G.

Modernizing the design of drum driers for sugar. Sakh.prom. 27 no.11: 25-27 '53. (MLRA 7:1)

1. Pivnenkovskaya gruppovaya laboratoriya.
(Sugar machinery)

RYCHKINA, YE. F.

Rychkina, Ye. F. -- "Interaction of Certain Phenylated Ethylenic Hydrocarbons with the Chloride of p-Nitrodiazobenzene." Leningrad State Pedagogical Inst imeni A. I. Gertsen, Leningrad, 1955 (Dissertation for the Degree of Candidate in Chemical Sciences)

SO: Knizhnaya Letopis', No 24, 11 June 1955, Moscow, Pages 91--104

RYCHKINA, Ye. F.

AUTHORS: Razumovskiy, V. V., Rychkina, Ye. F. 79-11-48/56

TITLE: Structure and Reactivity of Aromatic Hydrocarbons. (Stroyeniye i reaktsionnaya sposobnost' aromaticheskikh uglevodorodov).
II. On the Reaction of the Azobond of Phenylated Ethylenes With Hydrogen-Chloride-p-Nitrodiazobenzene (II. O reaktsii azosochetaniya fenilirovannykh etilenov s khloristovodorodnym p-nitrodiazobenzolom).

PERIODICAL: Zhurnal Obshchey Khimii, 1957, Vol. 27, Nr 11, pp. 3143-3148 (USSR)

ABSTRACT: By the action of 1,1-diphenylethylene upon hydrogen-chloride-p-nitrodiazobenzene in pyridine solution two compounds form: 1,1-diphenyl-2-p-nitrophenylethylene and p-nitrobenzyldiphenyl-carbinol. During further investigation of this reaction in an acetic solution the authors found that nitrogen does not split off and that an azobond with formation of 1,1-diphenyl-2,2-di-(p-nitrobenzolazo)-ethylene occurs: $(C_6H_5)_2 = C(N_2C_6H_4NO_2)_2$. In order to prove that this bond actually corresponds to a biazoformula, it was in the presence of hydrochloric acid reduced with stannic chloride.

Card 1/3

Structure and Reactivity of Aromatic Hydrocarbons. 79-11-48/56
II. On the Reaction of the Azobond of Phenylated Ethylenes
With Hydrogen-Chloride-p-Nitrodiazobenzene

In the reduction products they found p-phenylenediamine which was for identification converted to quinonedichlorimine. It was shown that 1,1-diphenylpropene-1 in reaction with hydrogen-chloride-p-nitrodiazobenzene in a pyridine solution yields 1,1-diphenyl-2 p-nitrophenylpropene-1 and 1,1-diphenyl-2-p-nitrophenylpropanol, but that in an acetic solution the extremely unstable 1,1-diphenyl-2-'p-nitrobenzolazo)-propene-1 develops. In the reaction of 2-phenylpropene with hydrogen-chloride p-nitrodiazobenzene in an acetic solution two products are obtained: p-nitrophenyl-2-phenylpropene-1 and the unsymmetrical di-'p-nitrobenzolazo)-methylphenylethylene. The infrared spectra cannot, as the authors earlier thought, serve as means of proving the structure of the compounds obtained. There are 1 figure, and 5 references, 3 of which are Slavic.

Card 2/3

Structure and Reactivity of Aromatic Hydrocarbons. 79-11-48/56
II. On the Reaction of the Azobond of Phenylated Ethylenes With Hydrogen-Chloride π-Nitrodiazobenzene

ASSOCIATION: Leningrad Electrotechnical Communications Institute (Leningradskiy elektrotekhnicheskiy institut svyazi).

SUBMITTED: November 9, 1956

AVAILABLE: Library of Congress

1. Phenylated ethylenes - Chemical reactions
2. Hydrogen-chloride-π-nitrodiazobenzene - Chemical reactions 3. Cyclic compounds - Chemical reactions

Card 3/3

KHRISHCHENOVICH, kh.; RADAVICHYUS, E. [Radavicius, E.]; KALININ, I.; RYCHKOV, A.; MYANDMAA, E. [Mändmaa, E.]; IL'IN, V.

Increase the scope of efficiency work in financial organs. Fin. SSSR 37 no.1:62-68 Ja '63. (MIRA 16:2)

1. Predsedatel' komissii po ratsionalizatorskim predlozheniyam Ministerstva finansov Belorusskoy SSSR (for Khrishchenovich). 2. Predsedatel' komissii po ratsionalizatorskim predlozheniyam Ministerstva finansov Litovskoy SSR (for Radavichyus). 3. Predsedatel' komissii po ratsionalizatorksim predlozheniyam Leningradskogo oblastnogo finznsovogo otdela (for Kalinin). 4. Predsedatel' komissii po ratsionalizatorskim predlozheniyam Tomskogo oblastnogo finansovogo otdela (for Rychkov). 5. Predsedatel' komissii po ratsionalizatorskim predlozheniyam Ministerstva finansov Estonskoy SSR (for Myandmaa). 6. Predsedatel' komissii po ratsionalizatoskim predlozheniyam pri Ministerstve finansov Chuvashskoy ASSR (for Il'in).

(Finance) (Suggestion systems)

RYCHKOV, A.

Avoid excessive correspondence. Fin.SSSR 18 no.7:44 Jl '57.
(MLRA 10:7)

1. Zamestitel' zaveduyushchego Tomskim oblfinotdelom.
(Income tax)

RYCHKOV, A. (st. Korenovskaya, Krasnodarskogo kraya)

Using the 6K3 lamp in place of the 6SJ7 lamp in the MGSRTU-100. (MLRA 9:8)
Radio no.6:45 Je '56.
(Amplifiers, Electron-tube)

RYCHKOV, A. A., Engineer; FEL'DSHTEYN, E. I.

Mbr., Gor'kiy Automobile Plant imeni Molotov (-1945-)

Candidate of Technical Sciences

"The Experience of Introducing Chemical Processing of Cutting Tools into Production," Stanki I Instrument 16, Nos. 4-5, 1945

BR-52059019

[redacted], S. Ye., Engineers

"Making Cast Tools from High-Speed Steel,"
Stanki i Instrument, 16, No. 3, 1945

SR-52059019

RYCHKOV, A. A.; UTKIN, S. Ye., Engineers

"Making Cast Tools from High-Speed Steel" (From experience at the GAZ (Gor'kiy Automobile Plant) imeni Molotov), Stanki i Instrument, 16, No. 3, 1945

BR-52059019

FEL'DSHTEYN, E. I.; RYCHKOV, A. A., Engineer

Mor., Gor'kiy Autmobile Plant imeni Molotov (-1945-)

"The Experience of Introducing Chemical Processing of Cutting Tools into Production," Stanki I Instrument, 16, Nos. 4-5, 1945

BR-52059019

USSR/Chemistry - Corrosion-proof materials FD-1333

Card 1/1 : Pub. 50-12/25

Author : Rychkov, A. I., Klinov, I. Ya.

Title : Experience in the application of Asbovinyl as a corrosion-proof material

Periodical : Khim. prom., No 8, pp 492-93 (44-45), Dec 1954

Abstract : Asbovinyl (polymerized ethynol containing disintegrated asbestos as a filler) was found to be a satisfactory corrosion-proof material that withstands the action of hydrochloric acid in all concentrations, chloride, chloride of lime, and some other chemicals. It forms a satisfactory substitute for lead and other nonferrous metals in protective coatings and is a suitable material for corrosion-proof tiles, pipes, and parts of chemical equipment. One table.

Institution :

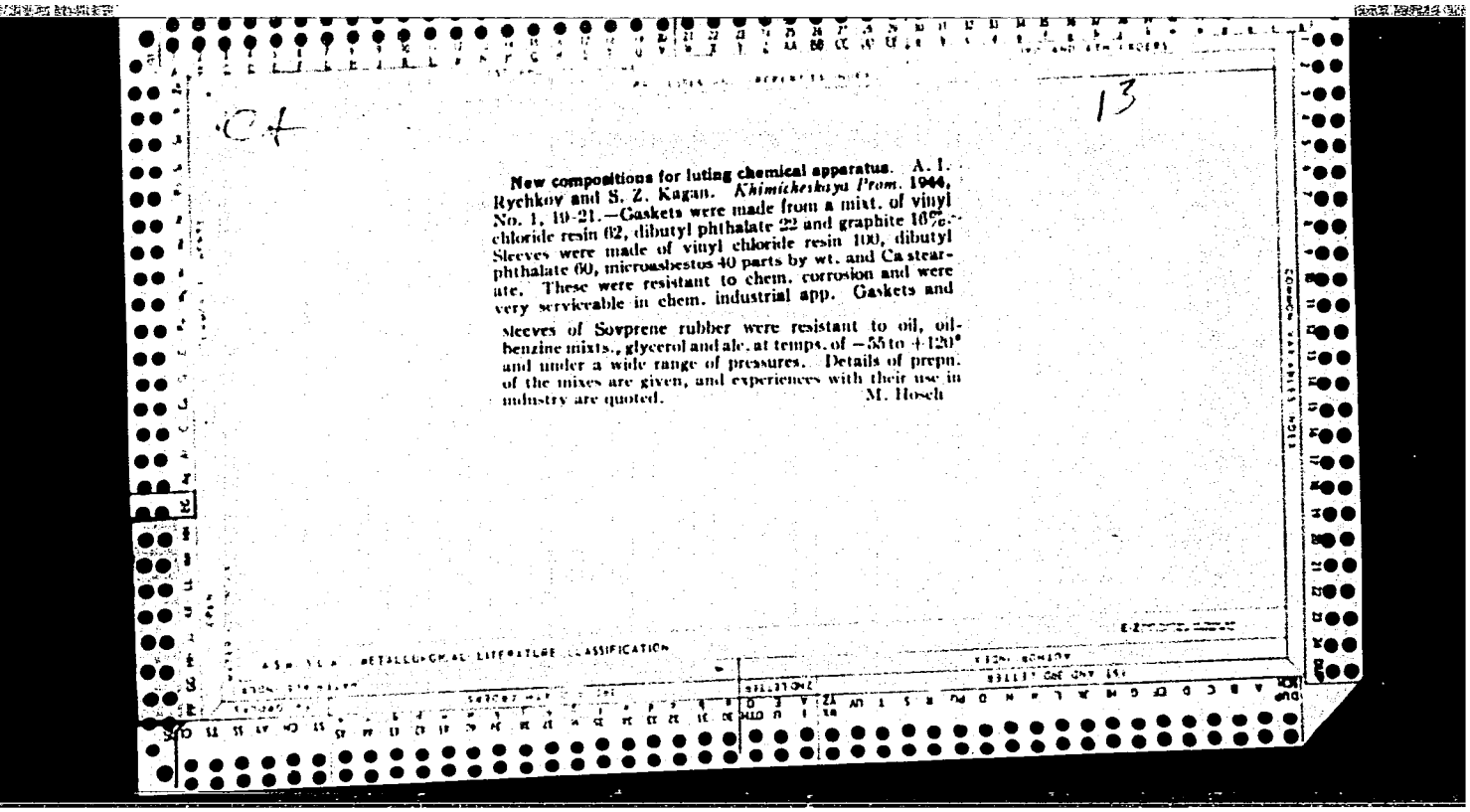
Submitted :

BRYKIN, P.A.; RYCHKOV, A.I., red.

[Establishing norms for geodetic and topographical work.] Normirovanie geodezicheskikh i topograficheskikh rabot. Moskva, Nedra, 1964. 280p. illus. (Moscow. TSentral'nyi nauchno-issledovatel'skii institut geodezii, aeros"emki i kartografii. Trudy, no.162).

(MIRA 17:9)

RYCHKA, V. L., Cand Tech Sci -- (diss) "Theory of frequency detectors of the impulse counter type." Moscow, 1959. 13 pp; (Ministry of Communications USSR, Moscow Electrical Engineering Inst for Communications); 150 copies; price not given; bibliography at end of text (12 entries); (KL, 17-60, 159)

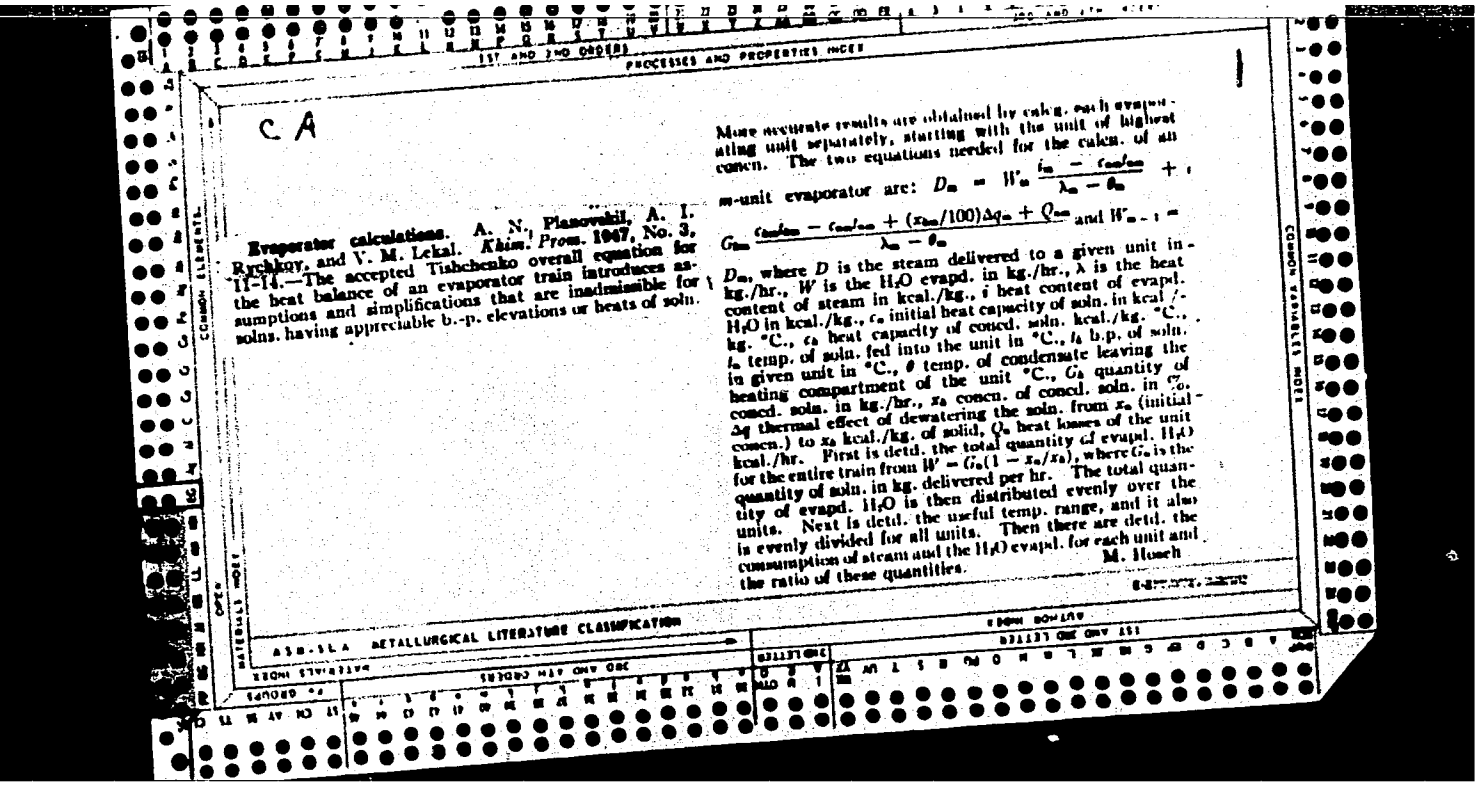


C4

13

New compositions for luting chemical apparatus. A. I. Rychkov and S. Z. Kagan. *Khimicheskaya Prom.* 1944, No. 1, 19–21.—Gaskets were made from a mixt. of vinyl chloride resin 62, dibutyl phthalate 22 and graphite 16%. Sleeves were made of vinyl chloride resin 100, dibutyl phthalate 60, microasbestos 40 parts by wt. and Ca stearate. These were resistant to chem. corrosion and were very servicable in chem. industrial app. Gaskets and sleeves of Sovprene rubber were resistant to oil, oil-benzine mixts., glycerol and alc. at temps. of −55 to +120° and under a wide range of pressures. Details of prepn. of the mixes are given, and experiences with their use in industry are quoted.

M. Hosch



C A

Evaporator calculations. A. N. Planovskii, A. I. Rychkov, and V. M. Lekal. *Khim. Prom.* **1947**, No. 3, 11-14.—The accepted Tishchenko overall equation for the heat balance of an evaporator train introduces assumptions and simplifications that are inadmissible for solns. having appreciable b.-p. elevations or heats of soln. More accurate results are obtained by calcg. each evaporating unit separately, starting with the unit of highest concn. The two equations needed for the calcn. of an m-unit evaporator are: $D_m = W_m \frac{i_m - c_m t_m}{\lambda_m - \theta_m} + \ldots$ and $G_m \frac{c_m t_m - c_m t_m + (x_m/100)\Delta q_m + Q_m}{\lambda_m - \theta_m}$ and $W_{m-1} =$ D_m, where D is the steam delivered to a given unit in kg./hr., W is the H_2O evapd. in kg./hr., λ is the heat content of steam in kcal./kg., i heat content of evapd. H_2O in kcal./kg., c_0 initial heat capacity of soln. in kcal./kg. °C., c_k heat capacity of concd. soln. kcal./kg. °C., t_k temp. of soln. fed into the unit in °C., t_k b.p. of soln. in given unit in °C., θ temp. of condensate leaving the heating compartment of the unit °C., G_k quantity of concd. soln. in kg./hr., x_k concn. of concd. soln. in %, Δq thermal effect of dewatering the soln. from x_m (initial concn.) to x_k kcal./kg. of solid, Q_m heat losses of the unit kcal./hr. First is detd. the total quantity of evapd. H_2O for the entire train from $W = G_k(1 - x_k/x_k)$, where G_k is the quantity of soln. in kg. delivered per hr. The total quantity of evapd. H_2O is then distributed evenly over the units. Next is detd. the useful temp. range, and it also is evenly divided for all units. Then there are detd. the consumption of steam and the H_2O evapd. for each unit and the ratio of these quantities. M. Hosch

RYCHKOV, A. I.

USSR

7748* Experiment in the Use of "Asbovinyl" as a Corrosion-Resistant Material. **Opyt primenenila asbovinila v kachestve antikorrozionnogo materiala.** (Russian.) A. I. Rychkov and I. Ia. Klinov. *Khimicheskaia Promyshlennost'*, 1954, no. 8, Dec., p. 492-493.

Protective coating identified as ethynol lac and ground asbestos for tanks and machine parts in sulfite cellulose plants, etc. Table.

USSR/Chemistry - Chemical engineering, Heat transfer

Card 1/1 Pub. 50 - 9/20

Authors : Rychkov, A. I., Planovskiy, A. N.

Title : An equation for calculations to determine the coefficients of heat transfer in connection with the boiling of liquids

Periodical : Khim. prom. No 5, 287-290, Jul-Aug 1955

Abstract : Equations for the calculation of heat transfer by convection in boiling liquids are derived. Data for various liquids are used in connection with the derivation, including some on oxygen and Freon-12 taken from USSR sources. Four graphs, 2 tables. Seventeen references; 11 USSR, 9 since 1940.

RYCHKOV, A. I. Doc Tech Sci -- (diss) "Study of the phenomenon of heat exchange in boiling liquids and solutions." Mos, 1956. 36 pp 22 cm. (Min of Higher Education USSR. Mos Order of Lenin Chem-Technological Inst im D. I. Mendeleyev), 100 copies (KL, 7-57, 106)

28

AUTHORS: Popov, B. G., Rychkov, A. I. 153-58-1-26/29

TITLE: Investigation of the Heat Exchange During the Boiling of Acqueous Solvents of the Mineral Salts (Issledovaniye teploobmena pri kipenii vodnykh rastvorov mineral'nykh soley)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 1, pp. 173-182, (USSR)

ABSTRACT: The convective heat exchange - complicated by the boiling process - is a consequence of complicated phenomena of physics. Various papers on the theoretical problems of heat exchange are available. Those by Klaassen belong to the earliest. The limited number of such works remains constant not only because of the rather complicated chemical process, but rather on account of the difficulties arising in the field of the experiment. The authors report in this paper on the results obtained by the test for the determination of the coefficient of heat emission with boiling of aqueous

Card 1/3

solvents of sodium sulfate or of lithium sulfate respectively. It was found that the above-mentioned coefficient depends on the type of the dissolved substance, as well as on its concentration in the solvent. The coefficient of heat emission decreases according to the increased concentration (see figures 3 to 5). The exponent n in the equation $\alpha = A.q^n$ depends equally on the nature of the dissolved substance and its concentration in the solvent. With most of the solvents the exponent n decreases. The temperature depression exercises great influence on the coefficient of heat emission. Generalizing the results of the data of investigation on the critical equation (Reference 7) these data come to lie in the same line - with a maximum deviation of 12%. There are 7 figures and 16 references, 12 of which are Soviet.

ASSOCIATION: Moskovskiy institut khimicheskogo mashinostroyeniya (Moscow Institute for Chemical Machine Building)

Kafedra khimicheskogo apparatostroyeniya (Chair of Chemistry Equipment Design)

5 (4)

AUTHOR: Rychkov, A. I. SOV/6-59-5-6/26

TITLE: The Experience Gained in the Drawing-up of the Technical Work Projects for the Topographic-geodetic Field Work (Opyt rabochego tekhnicheskogo proyektirovaniya polevykh topografo-geodezicheskikh rabot)

PERIODICAL: Geodeziya i kartografiya, 1959, Nr 5, pp 19-22 (USSR)

ABSTRACT: The topographic-geodetic work is carried out on technical projects in the aerogeodetic enterprises. Said projects are drawn up by a planning office on the basis of a preceding general study of the area in which the work is to be carried out, use being made of the best and most appropriate procedure in the carrying-out of this work. The approved technical project constitutes the basic document for the carrying-out of the topographic-geodetic work. In order to realize the technical project, however, detailed work projects must be drawn up. In the Moskovskoye aerogeodezicheskoye predpriyatiye (Moscow Aerogeodetic Enterprise) the work projects are, as a rule, drawn up by the field subdivisions entrusted with the carrying-out of the field work in section concerned. With the field parties, the

Card 1/2

The Experience Gained in the Drawing-up of the SOV/6-59-5-1/25
Technical Work Projects for the Topographic-geodetic Field Work

chief engineers are responsible for the work projects, whereas the chief topographers, engineers, and heads of groups are the executive organisms proper. - In the paper under consideration the carrying-out of work in the drawing-up of the work projects is described in great detail.

Card 2/2

FEDOROV, S.A., doktor tekhn. nauk; RYCHKOV, A.I., inzh.; KRAYEV, Yu.K., inzh.; ROZHENTSEV, N.P., inzh.

Using a flexible concrete stone ring lining. Shakht. stroi. 9 no. 12:17-18 D '65. (MIRA 18:12)

1. Sverdlovskiy gornyy institut (for Fedorov, Rychkov, Krayev).
2. Trest Yegorshimugol' (for Rozhentsev).

L 1959-66 EWT(m)/EPF(c)/EWP(j)/EWA(c) RM

ACCESSION NR: AP5021970 UR/0286/65/000/014/0019/0019
661.717.5 : 66.099.2

AUTHOR: Shakhova, N. A.; Rychkov, A. I: 44,55 44,55 1,4455 29 B

TITLE: Preparative method for granulated urea. Class 12, No. 172759 15

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 19

TOPIC TAGS: urea, spray drying, inorganic synthesis

ABSTRACT: An Author Certificate has been issued for a preparative method for granulated urea. The method involves synthesis from ammonia and carbon dioxide under pressure with subsequent distillation. To simplify the process, a 60—70% urea solution, blown by hot air, is spray dried to form a fluidized bed. [SM]

ASSOCIATION: none

SUBMITTED: 11Oct61 ENCL: 00 SUB CODE:

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4088

Card 1/1

TETERIN, Yegor Nikolayevich; SHUBIN, Nikolay Vasil'yevich; OCHERET'KO, Aleksandr Konstantinovich; PAVLOV, Vitaliy Fedorovich, dots; BARANOV, A.N., retsenzent; SUKHOV, A.I., retsenzent; POVALYAYEV, P.I., nauchn.-pedagog. rabotnik, retsenzent; PROKOF'YEV, F.I., nauchn.-pedagog. rabotnik, retsenzent; RYCHKOV, A.I., nauchn.-pedagog. rabotnik, retsenzent; YURO'V, S.I., retsenzent; KHROMCHENKO, F.I., ved. red.

[Organization and planning of surveying and topographical work] Organizatsiia i planirovanie geodezicheskikh i topograficheskikh rabot. Moskva, Nedra, 1965. 299 p. (MIRA 18:7)

1. Zaveduyushchiy kafedroy organizatsii i planirovaniya kartografo-geodezicheskikh rabot Moskovskogo instituta inzhenerov geodezii, aerofotos"yemki i kartografii (for Sukhov). 2. Kafedra organizatsii i planirovaniya kartografo-geodezicheskikh rabot Moskovskogo instituta inzhenerov geodezii, aerofotos"emki i kartografii (for Povalyayev, Prokof'yev, Rychkov, Pavlov). 3. Glavnoye upravleniye kapital'nogo stroitel'stva Ministerstva putey soobshcheniya SSSR (for Rychkov). 4. Nachal'nik Glavnogo upravleniya geodezii i kartografii SSSR (for Baranov).

RYCHKOV, A.I. [deceased]

Simplified calculation formulas for determining the coefficients of heat transfer in the film condensation of pure slowly moving vapors. Trudy MIKHM 26:137-160 '64. (MIRA 18:5)

SHAKHOVA, N.A.; RYCHKOV, A.I.

Crystallization of urea melt in a fluidized bed with the yield of a granular product. Khim.prom. no.11:856-859 '63. (MIRA 17:4)

KIBRIK, E.D.; RYCHKOV, A.I.

Study of heat transfer during evaporation of solutions of urea in a wetted-wall evaporator of the rotary type. Khim.prom. no.7: 527-531 Jl '63. (MIRA 16:11)

SHAKHOVA, N.A.; RYCHKOV, A.I.

Preparation of dry granulated nitrophoska from pulp in an apparatus with a fluidized bed. Khim.prom. no.11:839-842 N '62. (MIRA 16:2)

(Fertilizers and manures)
(Drying apparatus) (Fluidization)

SHAKHOVA, N.A.; RYCHKOV, A.I.

Drying of the copolymer MSN (methyl methacrylate, styrene, and acrylonitrile) in a fluidized bed. Plast.massy no.1:49-52 '63. (MIRA 16:2)

(Polymers—Drying)
(Fluidization)

S/191/63/000/001/012/017
B101/B186

AUTHORS: Shakhova, N. A., Rychkov, A. I.

TITLE: Drying of MCH(MSN) copolymer in the fluidized bed

PERIODICAL: Plasticheskiye massy, no. 1, 1963, 49-52

TEXT: MSN, a copolymer of methyl methacrylate, styrene, and acrylonitrile, m.p. 98°C, at 90% consisting of grains 0.4-1 mm in diameter, was dried in the fluidized bed of a testing apparatus. A fluidized bed already formed at an air velocity of 0.08 m/sec. The drying process was conducted at 0.195-0.324 m/sec, an air temperature of 86.7-134°C, and a fluidized bed temperature of 36-49°C. The drying capacity referred to 1 m^2 of drier surface was 31.8 kg/hr of removed moisture, or 24.4 kg/hr referred to 1 m^3 of the apparatus. 263 $kg/m^2 \cdot hr$, or 202 $kg/m^3 \cdot hr$ of dry product was obtained. Conditions recommended: air temperature 120-135°C, temperature in the fluidized bed 48-50°C, relative moisture of the outgoing air 55%, height of the fluidized bed 200-350 mm, air velocity 0.32-0.35 m/sec. In a second series of tests an additional heater was introduced in the fluidized bed, consisting of

Card 1/2

Drying of MCH(MSN) copolymer ... S/191/63/000/001/012/017
B101/B186

16 half-inch pipes, 180 mm long, which were electrically heated. The capacity increased to 100 kg of removed moisture per $m^2 \cdot hr$, 700 kg/m^2 dry product. The heat transfer coefficient was 200-400 $kcal/m^2 \cdot hr \cdot {}^\circ C$, the temperature of the ingoing air was 120°C, the temperature in the fluidized bed 55°C, the height of the bed 400 mm, its resistance 150 mm H_2O. The dried polymer contained 1.5% moisture. The heat supplied corresponded to the capacity of air heated to 270-260°C. The additional heater caused no stagnation in the fluidized bed. The procedure is recommended also for drying other substances sensitive to heat. There are 5 figures and 5 tables.

Card 2/2

FEDOROV, S.A., prof., doktor tekhn.nauk; SHCHUKIN, A.S., kand.tekhn.nauk; ANDREYEV, Ye.T., kand.tekhn.nauk; GORBUNOV, B.F., starshiy prepodavatel'; SEMANOV, V.G., assistent; RYCHKOV, A.I., assistent; GILEV, B.M., assistent

Qualifications of a mine building engineer. Shakht stroi. 5 no.7:6-7 Jl '61. (MIRA 15:6)

1. Sverdlovskiy gornyy institut.
(Mining engineering)

SHAKHOVA, N.A., kand.tekhn.nauk; RYCHKOV, A.I., doktor tekhn.nauk; DMITRENKO, Ye.V.

Drying of crystalline ammonium bicarbonate in a fluidized bed. Khim.prom. no.11:783-786 N '61. (MIRA 15:1)
(Ammonium carbonate) (Fluidization)

S/123/61/000/014/044/045
A004/A101

AUTHOR: Rychkov, A.I.

TITLE: Some examples of designing chemical apparatus from titanium

PERIODICAL: Referativnyy zhurnal. Mashinostroyeniye, no.14, 1961, 1, abstract 14Kh1 ("Tr. Mosk. In-ta khim. mashinostr.", 1960, v. 22, 86 - 95)

TEXT: The author describes the operation conditions of chemical apparatus. He presents the physical-mechanical and other properties of Ti which combines strength with a high ductility and plasticity. Ti does not lose its strength when being heated up to 430°C and is used in the form of sheet sheathing of the base structural material. The author presents a table of the heat conductivity, thermal capacity and coefficient of linear expansion of Ti and other metals. He describes chemical apparatus manufactured with the application of Ti including: heat exchangers, refrigerators, barometric condensers, drum-type driers, spiral tubes, utilizer-boilers, plate filter presses, autoclaves with mixer and pan driers, as well as valve structures from titanium and pump welded impellers. The demands are investigated which are made for the

Card 1/2

S/123/61/000/014/044/045
A004/A101

Some examples ...

manufacture of apparatus from titanium. The author emphasizes the great possibilities and prospects of using Ti in the chemical and other fields of industry. There are 12 figures and 9 references.

G. Blagovo

[Abstracter's note: Complete translation]

Card 2/2

RYCHKOV, A.I.

Some examples of structural design of chemical apparatuses made of titanium. Trudy MIKHM 22:87-95 '60. (MIRA 14:1)
(Chemical engineering--Apparatus and supplies)
(Titanium)

RYCHKOV, B.V.

Treatment of skin diseases of virus and hypothetical virus etiology with rivanol. Vest.derm. i ven. 34 no.12:64 '60.
(MIRA 14:1)

(SKIN--DISEASES) (VIRUS DISEASES) (ACRIDINE)

BASHUN, M.I.; VASIL'YEV, A.M.; GLADYSHEV, G.I.; RYCHKOV, B.V.; SMIRNOV, V.S.; FISHBEYN, P.A., inzh., red.; ARTYUKHIN, V.A., red. izd-va; UVAROVA, A.F., tekhn. red

[Catalog of spare parts for the ZIS-5, UralZIS-355, UralZIS-355B and UralZIS-355M motortrucks] Katalog zapasnykh chastei avtomobilei ZIS-5, UralZIS-355, UralZIS-355B i UralZIS-355M. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 354 p. (MIRA 14:8)

1. Ural'skiy avtomobil'nyy zavod imeni V.I.Stalina. 2. Rabotniki Otdela glavnogo konstruktora Ural'skogo avtomobil'nogo zavoda imeni V.I.Stalina (for all except Fishbeyn, Artyukhin, Uvarova)
(Motortrucks--Catalogs)

RYCHKOV, I., kand.tekhn.nauk

Working out projects and plans. Sel'.stroi. 15 no.9:15 S '60.
(MIRA 13:9)

(Regional planning)

RYCHKOV, I.N.

Transactions of the Laboratory (Cont.) of Aeromethods, AS USSR SOV/3815
V.7, Materials of 7th AU Interdept Conf. Aerial Survey (Dec 56). Moscow, 1959, 331pp.
Fedorov, N.A., and A.Ye. Sviridov [All-Union Topographic Surveying Trust - Soyuzmarkshtrest].
Application of Aerial Photography to Large-Scale Mapping of Coal Deposits 253

Samoylovich, G.G. [Lesotekhnicheskaya akademiya imeni S.M. Kirova - Forestry Academy imeni S.M. Kirov].
Use of Aerial Photographs in Forestry 257

Rychkov, I.N. [Soyuzkhozaeros''yemka - All-Union Photogrammetric Services for Agriculture].
Results of Using Aerial Photography for the Benefit of Soviet Agriculture 1931-56 265

Artsybashev, Ye.S. [Laboratory of Aerial-Surveying Methods].
Study of Spectral Reflecting Power of Forest Stands and Types (Annotation) 271

Card 11/15

RYCHKOV, N.I., inzh.

Small self-propelling floating pumping stations and their use in irrigation. Gidr. i mel. 12 no. 12:20-28 D '60. (MIRA 14:1)

1. Moskovskaya opytno-issledovatel'skaya dozhdeval'naya stantsiya.
(Moscow Province--Irrigation) (Pumping stations)

27836
S/032/61/027/010/012/022
B104/B102

5.5500

AUTHORS: Rychkov, R. S., and Glukhareva, N. A.

TITLE: Application of the radioactivation analysis to the determination of microimpurities in semiconductor materials

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 10, 1961, 1246 - 1250

TEXT: I. D. Berkutova, A. K. Gofman, N. A. Glukhareva, G. A. Kuznetsova, R. S. Rychkov, and N. B. Smirnova have worked out a method for the activation analysis of Ge, Si, SiO_2, SiC, $SiCl_4$, Al, C, and GaAs to determine the content of Au, Cu, Sb, Zn, and other impurities. Such microimpurities were successfully excited in a reactor and could thus be exactly identified from their γ-spectrum. The measurements were made with a multi-channel scintillation spectrometer whose NaI(Tl) crystal had a size of 40·40 mm. ФЭУ-29(FEU-29) and ФЭУ-1Б(FEU-1B) photomultipliers as well as 50-АИ-1(50-AI-1) and АИ-100(AI-100) analyzers were used in the electronic device. The specimens were carefully purified from surface contaminations and subsequently irradiated in quartz or polyethylene ampoules together with standards. After the irradiation the specimens were carefully

Application of the radioactivation...

purified once more. Na, Ta, Cr, Fe, Zn, Sb, Co, and Sc were determined directly from the γ-spectrum, if the specimens to be examined contained only insignificant amounts of impurities, and if one and the same specimen did not contain several impurities at the same time. Otherwise the specimens were decomposed by various chemical methods, and the interfering elements were removed. The microimpurities in the preparations thus obtained were determined from their γ-spectra which were compared with those of the standards. Practical tests have proved the method described here to be useful, both in technical and economic respect. Finally, security measures to be followed in the irradiation of specimens and standards in a reactor are briefly discussed. There are 1 table and 13 references: 3 Soviet and 10 non-Soviet. The three most recent references to English-language publications read as follows: G. H. Morrison. Anal. Chem., v. 26, no. 3 (1956). G. H. Morrison. Anal. Chem., v. 27, no. 5 (1955); A. A. Smales, Mapper. Atomic energy research establishment (1957).

Card 2/2

RYCHKOVA, A.G.; KELLER, R.E.

Syntheses of vinyl furfuryl ether, ethyl furfuryl and n-butylfurfuryl-acetaldehyde acetals. Zhur.ob.khim. 31 no.6:1849-1851 Je '61. (MIRA 14:6)

1. Voronezhskiy lesotekhnicheskiy institut.
(Furfuryl alcohol) (Acetaldehyde)

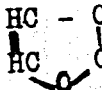
S/079/61/031/006/003/005
D223/D305

AUTHORS: Rychkova, A.G., and Keller, R.E.

TITLE: Synthesis of vinylfurfurol ether, ethylfurfurol-and-n-buthylfurfurol acetaldehyde acetals

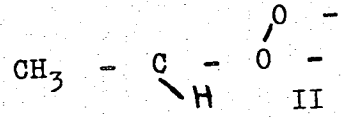
PERIODICAL: Zhurnal obshchey khimii, v.31,no.6,1961,1849-1851

TEXT: By direct addition of acetylene to furfurol alcohol, vinyl furfurol ester



(I)

was synthetized. Action of furfurol alcohol on the vinyl esters of ethyl and buthyl alcohols, ethylfurfurol-and-n-buthylfurfurol acetaldehyde acetal were synthetized, i.e.



II

where R = C_2H_5, H $-C_4H_9$.

Card 1/4

S/079/61/031/006/003/005
D223/D305

Synthesis of vinylfurfurol ether, ethylfurfurol-and-n-buthylfurfurol acetaldehyde acetals

The furfurol alcohol was obtained from furfurol by the Cannizaro reaction. The authors explain the synthesis process of vinyl furfurol ether and point out that the composition of vinyl ether in respect of acetaldehyde was found by the hydrolytic oxime formation method of M.F. Shostakovskiy (Ref 1: Prostyye vinilovyye efiry, (Simple Vinyl Ethers), Izd. AN SSSR, 1952), and found to be 98.68, 98.28% aldehyde. Vinylfurfurol ether polymerizes to a viscous liquid in the presence of iron chloride. The initial materials for the synthesis of acetaldehyde acetal were: vinyl ethyl ether (b.pt. 39.5°C, $n_D^{20} = 1.377$, $d_4^{20} = 0.7532$), vinyl-n-buthyl ether (b.pt 93.5°C, $n_D^{20} = 1.4026$, $d_4^{20} = 1.7791$) and furfurol alcohol. The synthesis was done by the method of Favorskiy-Shostakovskiy (Ref 1: Op. cit). During synthesis the cooling continued in order to cut down the side reaction and possible decomposition of acetaldehyde and corresponding alcohols (Ref 2: M.F. Shostakovskiy and

S/079/61/031/006/003/005
D223/D305

Synthesis of vinylfurfurol ether, ethylfurfurol-and-n-buthylfurfurol acetaldehyde acetals

N.A. Gershteyn, ZhoKh, 16, 937, 1946). When the reaction ended the temperature was brought to room temperature, potash added to neutralize the acid and then distilled in vacuo. The final purification was done with metallic sodium and re-distillation in vacuo. Yield 24.2 grams (51.99%). The hydrolytic oxime formation yielded 97.34, 98.24% of aldehyde. N-buthylfurfurol-acetaldehyde was synthetized using 24.5 gr. of furfurol alcohol and 25.05 gr. of vinyl-n-buthyl ether mixed in a flask fitted with a thermometer. After addition of a catalyst - a drop of concentrated hydrochloric acid - the temperature rose to 93°C. When the reaction ended the excess acid was neutralized with fresh potash and distilled in vacuo. Further purification was done with metallic sodium and re-distillation in vacuo. The yield of acetal was 29.66 gr. (59.84%). The hydrolytic oxime formation gave 97.34, 98.72% of aldehyde. The acetal obtained was a colorless liquid with a pleasant fruity odor, of good solubility in ether, alcohol and benzene. There are

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S/079/61/031/006/003/005
D223/D305

Synthesis of vinylfurfurol ether, ethylfurfurol-and-n-buthylfurfurol acetaldehyde acetals

2 Soviet-bloc references.

ASSOCIATION: Voronezhskiy lesotekhnicheskiy institut (Forestry Engineering Institute, Voronezh)

SUBMITTED : July 1, 1960

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KELLER, R.E.; RYCHKOVA, A.G.; PRUDNICHENKO, Ye.K.

Vinyl esters, their polymers and copolymers based on synthetic alcohol of the Shevekino-Combine of Synthetic Fatty Acids and Fatty Alcohols. Zhur. prikl. khim. 33 no.12:2801-2802 '60. (MIRA 14:1)

1. Voronezhskiy lesotekhnicheskiy institut.
(Esters) (Vinyl compounds)

24282

9.2150

Z/017/61/050/009/002/002
D219/D304

AUTHOR: Rychtařík, Václav, Engineer

TITLE: Measuring the thermal resistance of semiconductor power diodes

PERIODICAL: Elektrotechnický obzor, v. 50, no. 9, 1961, 488 - 491

TEXT: The author describes a simple method of measuring the thermal resistance of Ge and Si power diodes without mechanically adapting the diode system. The thermal resistance is expressed by the function $K_1 = \frac{\vartheta_j - \vartheta_p}{P}$, and parameters which have to be measured are: The crystal (junction) temperature ϑ_j; the envelope surface temperature ϑ_p; and the electric power loss P. The temperature of the junction ϑ_j can be determined indirectly by measuring another temperature-dependent parameter. Such a parameter, very often measured, is the inverse voltage, but better results are achieved by measuring the voltage loss on the junction in low-resistance direction at constant forward

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current. This loss is inversely proportional to the junction temperature when the forward current is at least 10^3 - 10^4 times larger than the inverse voltage. It is recommended taking two measurings, one at normal ambient temperature, the other 20°C above normal ambient temperature. The temperature of the envelope surface ϑ_p can be measured either by wetting the diode with a rapidly circulating liquid (e.g. pure transformer oil) or immersing it in boiling water. Isothermic conditions are thus created on the envelope surface and the temperature can be measured precisely. The electric power loss P is calculated from the voltage and current losses, whose arithmetic means are measured with a DEPREZ device. The measuring of the thermal resistance K_1 is performed at constant ambient temperature ϑ_p (while the junction temperature ϑ_j increases with the load). The specific current (I_{AKM}) shown in the circuit in Fig. 8 supplied by the battery (B) is regulated by resistors R_1 and R_2 and passes through measuring instrument M_1 and the switch S_2 to the diode

to be measured (MD); the semisinusoidal heating current (I_{AK}) comes from the transformer TR_1 and flows through switch S_3, the regulation resistors R_3 and R_4, the auxiliary diode D and the measuring instrument M_2 to the diode MD. Wired parallel to the diode MD are the voltmeter M_3 for measuring the voltage loss (U_{AK}) over the switch S_1, and a d/c compensator bridge for measuring the specific loss (U_{AKM}) over the contact (r_{11}) of the synchronous vibrator SV. The vibrator is supplied from the transformer TR_2 over the phase element RC. At first, the battery B is connected to the diode MD, the vibrator started, and the specific loss (U_{AKM}) on the diode MD is adjusted with the aid of R_1 and R_2 and checked with the compensator. This serves to determine the initial value of the junction temperature ϑ_j. Then a suitable heating current (I_{AK}) is applied by operating the switch S_3. The compensator must be connected by the vibrator contact only when no heating current flows. This means that a half-wave is on the transformer TR_1 which is not passed by the diode D. Correct phase adjustment is provided by the element RC. The compensator measures then only specific loss U_{AKM} at

Measuring the thermal resistance...

a constant current I_{AKM}. This serves to ascertain the junction temperature under load. The power loss of the diode MD is calculated from values U_{AK} and I_{AK} according to $P = 2 U_{AK} I_{AK}$. The auxiliary diode D must be of the same type as measured diode MD, must have minimum inverse current, and must be efficiently chilled. There are 8 figures and 5 references: 1 Soviet-bloc and 4 non-Soviet-bloc. The references to English-language publications read as follows: D. M. Goodway - J. S. Walker: The use of heat sinks with silicon power transistors. 1958, X. Semicond. Appl. Report 1, no. 3, p 3 - 14; H. C. Lin - R. E. Crosby: A determination of thermal resistance of silicon junction devices. 1957, III, IRE nat. Conv. Rec. 5, P3, p 22 - 25; J. Tellermann: Measuring transistor temperature rise. 1954, IV, Electronics 4, p 185 - 187; R. F. Gates - R. A. Johnson: The measurement of thermal resistance. 1959, VI, Semicond. Products, 6, p 21 - 26.

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24282
Measuring the thermal resistance... Z/017/61/050/009/002/002
D219/D304

ASSOCIATION: Výzkumný ústav sdělovací techniky A. S. Popova (Research Institute for Telecommunications A. S. Popov)

SUBMITTED: December 14, 1960

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Z/039/60/021/08/008/032
E140/E563

AUTHOR: Rychtera, Miroslav, Engineer

TITLE: Acceleration Factors for Climatic Tests of Dielectrics in "Cyclic Damp Heat" Compared with Exposure to Humid Tropical Atmospheres

PERIODICAL: Slaboproudý obzor, 1960, Vol 21, No 8, pp 480-484

ABSTRACT: The article presents a pseudo-mathematical discussion of accelerated climatic tests. The ratio of exposure times to cyclic damp heat and to actual tropical atmospheres for given damage is obtained empirically. The author is aware that a theoretical solution of the problem is very difficult because of the indefinability of the actual atmosphere, the schematic character of the test atmosphere, inadequate experimental data, etc. There are 3 figures, 1 table and 8 references, 3 of which are Czech, 3 German, 1 Soviet and 1 English.

ASSOCIATION: Státní výzkumný ústav silnoproudé elektrotechniky, Běchovice u Prahy (State Research Institute for Heavy-current Engineering, Běchovice, Nr Prague)

SUBMITTED: March 25, 1960

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24280
Z/017/61/050/008/002/002
D247/D305

9.2120

AUTHOR: Rychtera, Miroslav, Engineer

TITLE: Humid-heat microclimatic test for electro-insulation varnishes

PERIODICAL: Elektrotechnický obzor, v. 50, no. 8, 1961, 445-449

TEXT: The author lists the conventional methods for measuring electrical properties of insulation varnishes in humid-heat climatic tests and describes a novel, more advantageous microclimatic test method. Conventional humid-heat climatic tests are performed in rather large and expensive, automatically controlled chambers, and produced test values are subject to errors which must not be neglected. More advantageous is a microclimatic test method which uses a thermostat and test tubes containing some salt solution or water which are sealed by a plug, through which the specimen is led, its conductor thus performing as electrode and its insulation as bushing. Such a tube for testing the insulation varnish of a multiwire cable is shown in Fig. 1. The insulated cable

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